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Performance of innovative teaching strategies on students

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ABSTRACT

The purpose of this experiment was to investigate the effects of innovative teaching strategies on the performance of students of grade 1. The experiment was done on the teaching of Management subject to the students of grade 1. A sample of 50 students (boys and girls) was selected randomly out of the population of 100 students in grade 1 from an MBA College of Baroda City. Two groups of 25 students each were made. Pre-test of General Management was given to both the groups and the results were recorded. One group was taken as a control group which was taught Management by the teacher who used conventional method of teaching while the other i.e. the experimental group was taught by the teacher who used innovative teaching techniques. After one month's time of teaching, a post-test was conducted.

Keywords: Innovative Teaching Strategies, students' Performance, Experimental Group, Control Group

1. INTRODUCTION

"A large amount has been written about how people learn how to learn in the last two decades. Students are actively learning by observing and performing activities; while the practical implementation is involved, the learning process is more enlightened and the learner benefits from applied knowledge and skills and often involves trial and error during self-research.

If students are made to do so, it is more effective to just be asked to remember some information. The ultimate goal of the teaching system should be the applicable and unprejudiced knowledge. The syllabus does not encourage participants to participate in a typical classroom environment with a teacher's presentation and does not necessarily constitute the required level of involvement. Most students simply copy notes from the lecture or board as part of the responsibility of the class, but they do not produce their engagement level with the studies they teach. This special environment only encourages a fraction of students who start thinking about themselves and try to raise questions for the initiative (Hamilton, A., 2010)."

"Prior to the arrival of technology in education methods, the instructor is a transmitter and the learner is the recipient of the transfer. Typical medium can be conceived as a board, chalk, and lecture. The early decades of the twentieth century lasted for decades and were still practiced in many places. Instructor is the center of this model that gives real knowledge to the whole group of learners and has full power in the classroom. Students have the minimum role to play here and only at the end of the transmission (Orlich D. C, Harder R. J, Callahan R. C, Gibson H. W, 1998) .While today educators make this method limited and less effective as peaks can lose their concentration within half an hour. Inactive role and less participation Some limited factors can be summarized as follows"

1. This is a one way transmission of knowledge.
2. The knowledge is purely factual.
3. Students' feedback and queries are very limited or even non-existent at times.
4. Course material is limited to the pre-prepared lectures and text books.
5. Insufficient elements of interest and engagement for the learners.
6. Applied and real life knowledge is least discussed and focus is purely based theory.

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7. The system promotes memorizing skills of student and least concerned with the understanding.

"As this approach is least practical and applied and more theoretical and memorizing (Teo & Wong, 2000), activity based learning encourages student to learn real life problems based on applied knowledge and keep the interest and understanding of the students at its highest level. (Boud & Feletti, 1999).

Today is the era of Management and technology and there is a great need to improve quality of education specifically of Management education. This can be possible by brining fundamental changes through innovates techniques through which teachers can provide students centered learning environment that can make learning process interesting and understandable to the young learners.

At a primary level there are so many children who get bored in the classrooms and some of them even refuse to go to school. Most of them are highly intellectual and they feel boredom and monotony in the class due to same usual teaching patterns of the teachers. These children sometimes produce alarmingly poor results in the exams (Steven, M. & Jennifer, K., 2004).

The researchers anticipated to determine the effects of innovative teaching techniques on students' achievement. This was an experimental research conducted on the students of grade 1 to analyze the psychological effects of teacher's behavior and teaching styles on students' learning (Steven McGee, Ph.D. & Howard, E. D., 1998).

There was a research conducted on elementary classrooms in 1974 by Jane Stallings and her associates to study relationship between teacher behaviors and student achievement. The behaviors of teachers were observed in 166 classrooms and their students were tested for achievement gains in mathematics and reading. Along with many other findings it was discovered that the teachers who were more businesslike and had pre-planned activities in structured classrooms produced better results as compared to those with informal classrooms and routine methods (Sheppard, L., 2000).

Doyle studied the impact of academic learning through indirect tasks in 1983 where the learners were redirected to focus their attention to alternate tasks rather direct study of the curriculum. He concluded that learning can is influenced by targeting and applying different ways of processing information and focusing the attention towards a particular task (Collins, A. Robert J. Jones, 2004)"

(Damodharan V. S. & Rengarajan .V, 1999)Some other research assert in their work in the individual needs of the students that cannot be fulfilled with one standard teaching method as every student comes from different background and possess different questions about the things being taught and have a different focus towards the environment around him or her. So until and unless the things get cleared in the mind of students, the learning cannot be gauged, rather conventional methods are mostly measuring the memorizing skills of the students instead of bringing clarity in their minds.

2. METHODS

The objective of this experiment was to uncover the effects of innovative teaching techniques used by the grade 1 Management teacher. The techniques the researcher used during this one month of experiment were:

Team project

•Individual projects	• Internet access	• Smart Boards
• Field trip	• Computer assisted instructions	• Group discussions
• Flash cards	• Role play	• Quizzes
• Real objects	• Work sheets	• Mind Map
• Audio- visual aids	• Internet access	

This experiment was conducted after the final exams of class 1 with the consent of their parents.

a) Population 50 students were selected on random sampling out of the total population of 100 students of class1. These children were average students. Out of these 50 students again systematic random sampling was done to divide them into two groups of 25 students each. Pretest was taken. Now one group is said to be the control group and other one is the experimental group.

b) Control Group The control group was kept as constant and was taught by the teacher who did not use the above mentioned techniques rather she taught with traditional (lecture and discussion) method.

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c) Experimental Group Experimental group was taught by the teacher using all the above mentioned techniques.
d) Intervening Variables Class environment and arrangement were initially kept the same. The qualification and experience of both the teachers were exactly equal. Home assignments given to both the groups were exactly the same in order to avoid the intervening of the parents.

3. HYPOTHESIS

- There is no significant difference between mean scores of experimental group and controlled group on pretest.
- Students taught by the teacher using innovative teaching strategies produce better results as compared to the other group of students taught with traditional/conventional method.
- The under achievers or the students having below average scores perform well in experiment group and thereby collective achievement of the experiment is better than the control group.
- The students of the experimental group have more clear concepts and they will be retained longer as compared to those taught with traditional method.
- Students of the experimental group will attend the school happily and will take interest in the class.

4. EXPERIMENT

The duration of the experiment was one month starting from April 28th to May 27th 2019 after the final Examination was over. The reason for conducting the experiment at this time of the year is that the regular classes would not be disturbed and the parents of any of the groups would have no objection.
According to the planner made by the researcher, four topics were taken from the General Management books which were not from the text book prescribed for that school. Initially both the class rooms were set on the same standard pattern later the researcher rearranged the experimental classroom with modern equipment. Exactly after one month's time, post-test was conducted from those four topics. A remarkable difference was observed between the scores of the two groups.

A) **Pre-Test Result**

Control Group Score					
No.	**Score**	**No.**	**Score**	**No.**	**Score**
1	67	11	87	21	97
2	69	12	88	22	93
3	91	13	87	23	97
4	78	14	93	24	91
5	87	15	77	25	96
6	90	16	88		
7	81	17	92		
8	84	18	96		
9	97	19	93		
10	91	20	95		

Experiment Group Score					
No.	**Score**	**No.**	**Score**	**No.**	**Score**
1	68	11	85	21	98
2	72	12	86	22	99
3	80	13	95	23	94
4	76	14	88	24	93
5	88	15	76	25	97
6	84	16	94		
7	89	17	89		
8	83	18	95		
9	94	19	94		
10	93	20	94		

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B) Statistics

	Control Group	Experiment Group
Mean Score	88.20	88.16
S.D.	8.25	8.40
Variance	65.28	67.73

Range of Score	Control Group	Experiment Group
60-70	2	1
70-80	2	3
80-90	7	9
90-100	14	12

C) Distribution

Pre-test results display a clear similarity between the control group and the experiment group. The mean scores are matching: i.e. 88.20 and 88.16. The standard deviation and variance shows that the scores are equally distributed in the two groups. And the frequencies of the various grades are also almost same with equal number of students: in the lower bands, 60 - 80 we have 4 students in each group and above 80 we have 21 in each. So there exists a symmetry and it was kept as per hypothesis, the experiment is supposed to evaluate the impact on students with a blend of different grades and different IQ and acceptance level.

B) Post-Test Result

Control Group Score					
No.	**Score**	**No.**	**Score**	**No.**	**Score**
1	64	11	76	21	75
2	86	12	77	22	54
3	71	13	84	23	63
4	83	14	86	24	71
5	91	15	71	25	68
6	73	16	75		
7	83	17	85		
8	79	18	73		
9	65	19	63		
10	63	20	62		

Experiment Group Score					
No.	**Score**	**No.**	**Score**	**No.**	**Score**
1	75	11	99	21	95
2	89	12	97	22	94
3	79	13	94	23	93
4	94	14	96	24	91
5	97	15	93	25	94
6	89	16	99		
7	99	17	97		
8	89	18	94		
9	78	19	99		
10	79	20	94		

A) Statistics

	Control Group	Experiment Group
Mean Score	73.64	91.88
S.D.	9.46	6.99
Variance	85.99	46.91

B) Distribution

Range of Score	Control Group	Experiment Group
60-70	8	
70-80	10	4
80-90	6	8
90-100	1	13

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The post-test results are completely different from the pre-test results. There exists a huge gap between the mean scores and the experiment group is a clear win. The mean score for the control group turned out to be 73.64 and the experiment group is much higher i.e. 91.88.The variance is half. The scores in the experiment group are more focused which shows a convergence in score bands and the transition is from lower to higher as the mean score is raised.

The analysis of the score bands shows a good shift in the higher band of the experiment group while the frequencies are distributed in the control group and no pattern can be observed. The lowest band is eliminated in the experiment group which is very positive indicator as it shows the achievement of students that may be referred as under-performers compared to the rest. Likewise the middle bands are moved to the high achievers and the result becomes over all improved. Hence the statistics show the both individual and collective achievement in the experiment group; improvements in underachievers, convergence towards the higher band of scores.

5. ANALYSIS

Starting with same mean score in the pretest almost same distribution of grades, the post test results are totally different. There is noticeable difference in the mean scores of the two groups i.e. 91.88 of experiment group compared to 73.64 of the control group. Clearly the experiment group outperformed the control group. This is not the only measure. We have a reduced variance and standard deviation in our results showing the overall achievement of the group and similarity in the pattern of scores among the experiment group students. The results get further clarify if we observe the frequency of various ranges of scores. The mode of experiment group is 90-100 and while the control group is 70-80. Also the frequency is highest and concentrated in the high group. The ratio of under achievers is the minimum; there is not student found in the minimum band of scores.

6. CONCLUSION

With the observed results the conclusion is very clear that the innovative teaching methodologies outperform the traditional classroom teaching. The impacts are found on both individual and group level. It satisfies the individual learning requirements and increases the interest level among the students. At the group level, more students are found scoring higher grades and with the special focus on the students who performed less in the pretest the frequencies of lower grades are remarkably reduced. The quantifiable hypothesis number 1, 2 and 3 are clearly proved through this experiment.

REFERENCES

1. Boud, D. & Feletti, G. (1999). The Challenge of Problem-Based Learning, (2nd Ed.), London:
2. Collins, A. Robert J. Jones (2004) Enhancing Student Learning Through Innovative Teaching and Technology Strategies. Kogan Page.
3. Damodharan V. S. & Rengarajan .V (1999). Innovative Methods of Teaching. National Research Council, Educational Journal Publication.
4. Hamilton, A. (2010). Innovative teaching strategies for student-centered learning: Utilizing Honey & Mumford's Learning Styles.
5. Orlich D. C, Harder R. J, Callahan R. C, Gibson H. W (1998). Teaching strategies: a guide to better instruction (5th edition), New York.
6. Sheppard, L. (2000). The role of assessment in a learning culture. Educational Researcher, 29(7), 4-14.
7. Steven McGee, Ph.D. & Howard, E. D. (1998). NASA Classroom of the future evaluating educational multimedia in the context of use.
8. Steven, M. & Jennifer, K. (2004). Integrating Scientifically Based and Design Experiment Research.
9. Teo, R. & Wong, A. (2000). Does Problem Based Learning Create A Better Student: A Reflection? Paper presented at the 2nd Asia Pacific Conference on Problem? Based Learning: Education Across Disciplines, December 4-7, 2000, Singapore."